GRUMMAN plane news

Vol. 32, No. 13, Bethpage, N. Y., July 13, 1973

Spangenberg on F-14 Tomcat: Buy more and buy them faster

The Grumman F-14 was on the receiving end of some heavy praise these past couple of weeks, and the men who singled out the Navy's newest supersonic air-superiority fighter for these accolades did so from different points of view. But it all added up to the same thing: a big vote of confidence in the Tomcat.

On June 26, George A. Spangenberg, former director (now retired) of the Evaluation Division of the Naval Air Systems Command, appeared before the Senate's Ad Hoc Subcommittee on Tactical Air Power of the Committee on Armed Services. At the meeting attended by Senators Howard Cannon, Barry Goldwater, Stuart Symington, and Strom Thurmond, Goldwater praised Spangenberg for "the translation of your understanding of aircraft design and specification into first line naval aircraft that perform within the technical and operational parameters, you have performed with distinction on behalf of the United States Navy and this country."

Spangenberg then reviewed the proposed prototype design and fly-off between the F-14 and F-15 and stated:

"It is clear to me that no money can be saved in following the proposed prototype program, but in fact, more capable airplanes can be produced at a lower cost using more conventional and proven approaches. . . . "

While calling attention to the fact that Navy pilots "are absolutely convinced that it is the finest fighter flying today . . . they are willing to take on anyone, anytime, anyplace . . . ", Spangenberg pointed out three key factors that should be considered: the multi-shot capability of the AWG-9/ Phoenix; the ground attack capability of the current AWG-9 fire-control system; the necessity for a two-man crew that became apparent to the Navy when the F-4 was finally configured in 1955.

In closing his prepared remarks, Spangenberg said: "My opinion is that we must seek solutions to the F-14 price problem within the program. The preferred solution is to buy the airplanes at a higher rate. If development funds are to be spent they should be applied to the airplane in a way to reduce total program price, and not to develop less capable alternatives."

'Unqualified success'

And from across the country at the Naval Air Station, Miramar, California, Lt. Kurt Strauss, an NFO with VF-124, added his thoughts on returning from Europe with Cdr. Jim Taylor. There they had flown the F-14 in a series of demonstrations at the Paris Air Show before an international audience, and in England and Spain, as well.

Plane talk. Sen. Strom Thurmond (R-SC), a member of the Senate Armed Services Committee, visited the Calverton Facility to tour F-14 production line and to get acquainted with the F-14 program. Here, Senator Thurmond is briefed on the Tomcat cockpit display by F-14 production test pilot Tom Gwynne (L) and Bob Smyth, deputy director of Flight Acceptance Department. (Photo by Bob Settles)

"The F-14 European tour was an unqualified success," said S t r a u s. "Even those familiar with F-14 flight performance (including the crew) were astounded with the unparalled high 'g' maneuverability and slow flight stability displayed. During a 22-day period, 19 flights were flown including two 8.5 hour trans-Atlantic crossings. Most significantly, the aircraft never incurred a downing-gripe. . . .

"The F-14 was flown non-stop from Pensacola, Fla., to Torrejon, Spain, over a 4,200 mile, 8.5 hour route. In-

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Yesterday, today, and tomorrow. At Calverton last week Grummanites were treated to a static display and air demonstration of the F-11F Tiger, F-14 Tomcat, and A-6E Intruder. The Tiger, of course, was first produced in the mid-Fifties and later flown by the Blue Angels during aerobatic exhibitions. The Tomcat and Intruder are now in Fleet service, and it is expected that they will be serving the Navy for a long time to come. (Photo by Ed Rischert)

NAVPLANTREP— THE NAVY'S MAN AT BETHPAGE

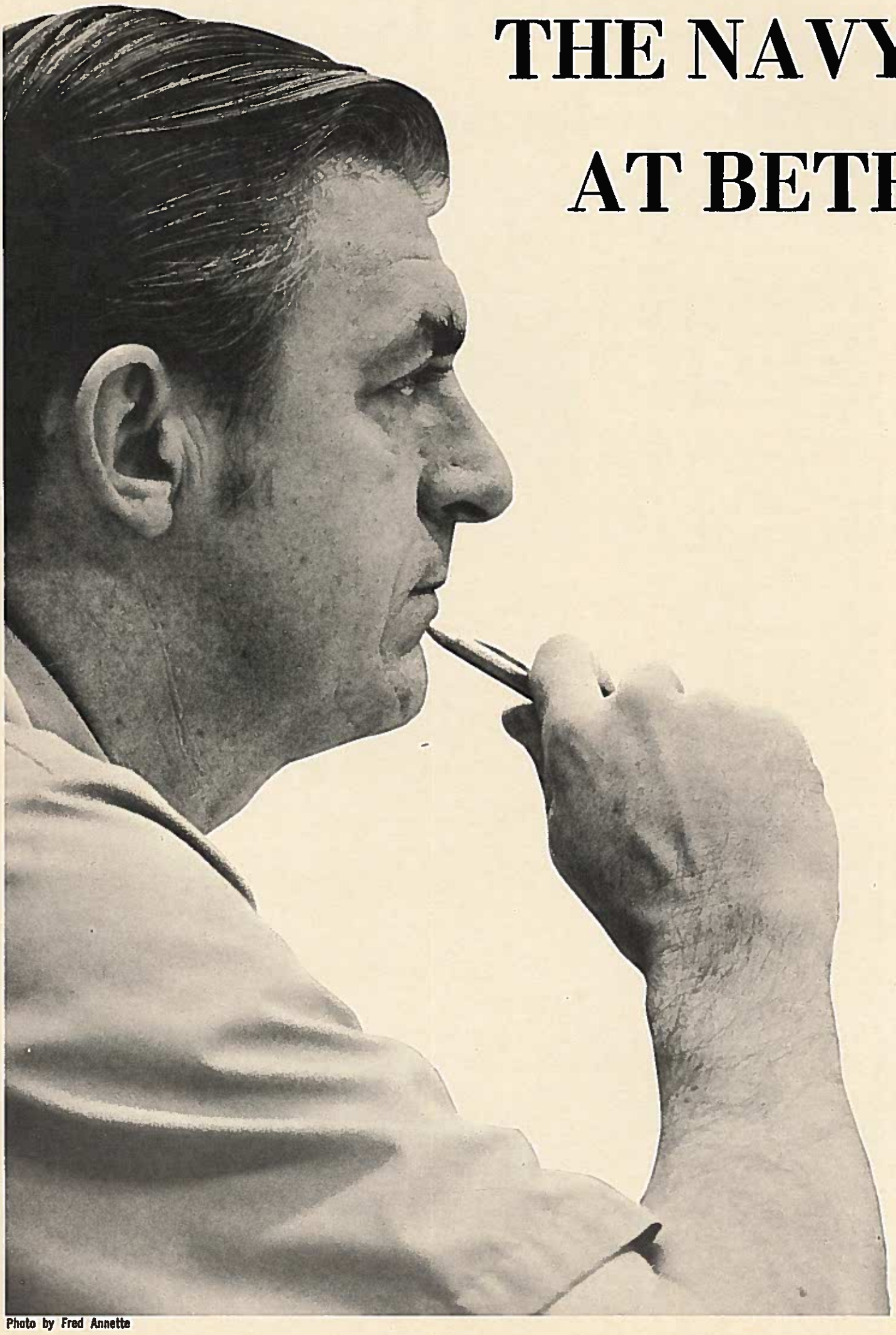

Photo by Fred Annette

"The NAVPLANTREP mission is to provide contract administration services including administrative contracting officer authority on assigned contracts and to provide representation with the assigned contractor concerning the procurement of materials and services for NAVAIR departments of the Navy, Army, and Air Force, the Department of Defense and other Government agencies and foreign governments as directed."

That is quite a job charter, but it's hardly exhaustive. For example, the NAVPLANTREP also "Acts as technical representative of Naval Air Systems Command and other Government activities as assigned. Organizes and supervises the Naval Plant Representative Office (now staffed by 13 military officers and 209 civilians). Acts as Contracting Officer for NAVAIRSYSCOM in field administration of contracts. Insures compliance with engineering requirements and proper inspection of materials. Controls internal security within NAVPRO. Administers assigned contracts in accordance with terms of the contract and current directives. Is responsive to the desire of NAVAIRSYSCOMREPLANT in effecting his coordination and administrative responsibilities. Promotes and fosters morale and discipline."

All that—and more—seems to cover the waterfront. And it leaves no doubt about where the command responsibility rests . . . and who gets scorched if decisions backfire. The man on that hot seat, as he has been for two years, is Capt. Robert Belter, Naval Plant Representative at Bethpage. And you sense very quickly that here's a man who will meet the requirements of the mission, preferably through rational discussion, but, when necessary, with a verbal sledgehammer. He knows his mission, is not at all intimidated by it, and acts accordingly.

"What I have to do is both simple and complex," Captain Belter says. "My fundamental responsibility is to get what was contracted for and see that it works properly. That's the part

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Dragowitz had an idea . . . and it saved millions on F-14 test

During these times, the emphasis is on cost reduction. So when Charlie Dragowitz and several others from Aerodynamics, Plant 35, implemented a suggestion that yielded savings to the Navy of $4.6 million in Fiscal '73, you might imagine the commendable responses they got from the Navy.

Charlie Dragowitz

Dragowitz, who headed the F-14 stores separation program, and Ralph Johnson and John Clark, also of Aerodynamics, developed a method of reducing the number of flights and missiles required during the F-14A missile flight testing.

To initiate this program, Dragowitz suggested the use of a computer (IBM 360-67) in the Data Systems Center, tied in to the ARDS (Automatic Remote Display Station) TV tube, so that drawings could be displayed on the screen to plot the manner in which the missiles separate from the aircraft during various flight conditions. When integrated, this combination produced what could be termed "a million-dollar automated etch-a-sketch."

Dragowitz explains: "Various types of data are pumped into the computer, solved, and transmitted back to the TV screen. At any time we may erase the input to check or change the predictions. In addition to flight conditions are data regarding missile loads and the aircraft flow field," he added, "these data allow us to guard against unsafe separations as well as to run the flight program with a greater degree of confidence."

"This TV picture appears within minutes; ordinarily it would take a half-day if plotted by hand," commented Johnson as he sat patiently in front of the screen waiting for the next drawing to appear.

Dragowitz's technical skill and persistence eventually helped sell the idea to the section and F-14 program for actual use on the Tomcat.

According to Dragowitz, "the present procedure relys on a complete analytical study of: (1) the entire aircraft flight envelope (boundary of points in which an aircraft flies based on altitude, speed, load factors and other parameters such as banks, dives, climbs, and coordinated turns from sea level to maximum altitude); and (2) all probable configurations (the number of stores or missiles an aircraft is allowed to carry), so that safe separations may be determined. When this entire flight envelope has been defined at the most critical aircraft configuration, several in-flight separations are demonstrated to prove the analytical results."

Navy message

Capt. Bob Belter, Naval Plant representative at Bethpage, commented that: "The most important contribution to the cost savings was astute iteration by the F-14A Missile Flight Test Program of Grumman Aerospace Corporation." During the course of this program nearly 50 air-intercept missiles (AIM) were saved—17 AIM-7s (Sparrow); 16 AIM-54s (Phoenix); and 14 dummy AIM-54s.

As group head for Aerodynamics and Analysis, Dragowitz is responsible for establishing configuration geometry necessary to achieve desired vehicle characteristics; required to direct, plan, schedule and coordinate activities of personnel in the group; provide aerodynamics data to other engineering disciplines; and perform group head administrative duties. Dragowitz received a B.A. degree in mathematics from Manhattan College in 1953 and attended Brooklyn Polytechnic Institute and Adelphi University from 1956 to 1961.

Joe Milillo of Motivational Programs, Plant 5, extended congratulations to Dragowitz and all other personnel concerned with the project for their continuing efforts towards achieving the goals of Project Sterling — Excellence in the Grumman tradition.

Tomcat draws praise . . .

(Continued from page 1)

flight refueling was provided by a KC-135 tanker. The inertial navigation system was extremely accurate and was used to give position/wind updates to the pathfinder KC-135 tankers. The AWG-9 was used to acquire the tanker with initial radar/ir detection in excess of 100 miles.

"The return trip was also without incident over a 3,800 mile., 8.1 hour route from Torrejon, Spain, to Pax River, Md. The aircraft was fully up on arrival."

Strauss concluded:

"The reaction of heads of state, military fighter pilots, international journalists, and aircraft designers was unanimous: they were awed by the F-14's maneuverability and inherent stability at all air speeds and its unique weapon system capability."

GDS Institute adds another . . .

C.W. Post College will offer graduates of Gruman Data Systems Institute transfer college credits, according to George Capua, director of the institute. N. Y. Institute of Technology has the same arrangement with GDSI.

Capua says that GDSI students working toward a bachelor's degree in day or evening classes at Post are eligible for college credit and tuition reimbursement—if they are registered under the Grumman after-hours college tuition-reimbursement plan — if they qualify scholastically and continue with their education in an approved college. Also, Grumman employees and their families are eligible for a 10 percent discount at the institute.

Under the plan, C.W. Post will grant up to 18 college credits for computer programming and systems analysis courses taught at GDSI. Although it's not covered under the Post plan or tuition-reimbursement, the Institute also has keypunch classes starting every month.

The next programming course begins in September. Capua says that free placement assistance is offered. For more information, call Ext. 2095.

'Communications upward' starts at top

It was the first meeting with Grumman Corporation President Jack Bierwirth for many in the group at Plant 39 a couple of weeks ago. The get-togther was the invited session of an "upwards communications" program, involving about sixty people from Grumman Aerospace and Grumman Data Systems and sponsored by the Training and Development Department. Bierwirth joined Grumman Corporation about a year ago as Vice-President—Finance and was elected President in November of 1972.

During the meeting, Bierwirth, a former executive vice president and general manager of international operations for National Distillers and Chemical Corporation, reviewed Grumman Corporation's diversification efforts, explored some future possibilities—including international sales—with his audience, and revealed that Grumman is embarking on a new advertising campaign as well. All-in-all, it was an interesting, informal, two-hour across-the-board presentation by the lanky corporation president, with a question-and-answer period opening up still further excursions into the operations of the parent company.

But the "feedback"—a reverse kind of flow that was expected to provide Bierwirth with a different perspective and insight into some of the day-to-day corporate operations and problems—never did surface. To avoid similar flat spots in future meetings of this sort, says Dan Knowles, director of Personnel for Grumman Aerospace, participants will be encouraged to submit questions—anonymously, if preferred—prior to these sessions to keep the discussion two-way and informative to all parties.

Pearson elected vice president at Grumman Data Systems

It may be awhile before Bob Pearson gets settled in at Grumman Data Systems—he's still commuting weekends to his home near Washington, D.C.—but when he does the association could prove an interesting one. Pearson was elected last month as a vice president of Data Systems with responsibility for the development, production, and marketing of products and services of financial systems, data systems, instrument systems, and research and development in the Grumman Corporation subsidiary.

Bob Pearson

Although he's an engineer by training and a manager by experience, Pearson thinks of himself as being more of an entrepreneur. As he sees it, his primary task is that of putting together the right combination of people to prove or disprove various systems concepts, and when that has been done, to make sure the final product works.

Grew up with computers

Pearson, an Iowa State College graduate in mechanical engineering, has "grown up with computers" and holds five patents in the field, the first of which was a memory device for the Midas satellite program. That breakthrough, he says, "took me from being a kid on the bench to group head of 160 engineers." With that start he went on to become director of the Information Systems Division, Laboratory for Electronics; and with Anelex Corporation, a subsidiary of Mohawk Data Sciences Corporation, manager of disk file development; vice president and director of engineering; vice president and general manager, MDS Research and Development Center; and, finally, vice president, Federal Systems and OEM Marketing.

He's not a systems conceptualist, he stresses; his involvement in the computer world has been in the invention, design, development, and production of peripheral equipment that delivers the various and sundry data produced by computers to the man-machine interface. It is in that peripheral area, as distinct from the computer main-frame, that Pearson sees as a likely possibility of further expansion at GDS.

Moving about his office in the Data Systems Center, Pearson switches from cigar to pipe as easily as he snaps off observations of the computer industry. Many of the problems he has encountered in the data systems field lie not with basic systems concepts but with the mechanics of computer operations. In other words, many of the technical headaches that occur are centered in the mechanical operation of the computer itself and in the distribution of the data, once they are produced, by supporting equipment. "I don't think we can consider computers as being only the mainframe. We have to see the operation as a total picture, one in which the physics of the system is certainly as important as the basic concept. If the system is to work satisfactorily, the two are interdependent."

One of Pearson's immediate tasks will be to finish up the development of MASSTAPE, Grumman Data System's new on-line modular mass storage system that stores as many as one trillion bits of information and can issue the data as needed at rates up to one million bytes a second. That piece of equipment, Pearson points out, has two computers tied into its system, and yet can be considered only a supporting—or peripheral—player in the world of computers.

Although his view of the Grumman scene is still somewhat limited, he did observe that GDS had tremendous potential for the design and development of sophisticated systems like MASSTAPE, and viewed future collaboration with Grumman Aerospace through the use of specialized engineering skills as a distinct possibility.

Pearson and his wife Heidi are moving to Huntington, Long Island with their four children, Nancy, Eric, James, and Sarah. Their home is near the water since they have among their equipage a Tartan 27 sailboat.

Announce changes in corporate structure

In recent months there have been a number of appointments in Grumman Corporation and Grumman Aerospace.

Jack Bierwirth, President of Grumman Corporation, announced the following appointments:

Nat Busi as assistant Controller. Busi will assist Pat Cherry, Vice President-Controller of Grumman Corporation "in the development, issuance, and interpretation of the corporation's accounting and financial reporting policies and practices, and will ensure that each subsidiary conforms to such corporate policies and practices."

Howard Dunn, director of Corporate Audit. Dunn, who reports to Vice President-Administration John Carr, is "responsible for all auditing activity within Grumman Corporation . . . for all financial audits of subsidiaries, and for functional audits within subsidiaries as appropriate."

Joe Gavin, Chairman of the Board and President of Grumman Aerospace, has announced in recent weeks the following change in assignments:

Alex Alexandrovich, Vice President-Product & Technology Development; Fred Raymes, director of Product and Systems Planning. Both report to Senior Vice President Grant Hedrick.

Fred Main, staff assistant to Ed Dalva, Vice President, Bethpage Operations; Ron Heitzmann, director of Material & Processes, who reports to Vice President Larry Mead, Technical Operations.

Within the Resources organization: Rolf Larson, director of Resource Control, and reporting to him, Frank Wisekal, director of Contracts, and Ed Siebert, director of Planning, Controls, and Budgets. Also, Dick Higgins, director of Administrative Services. Larson and Higgins report to Administrative Vice President John O'Brien.

Within the Treasurer/Finance organization, and reporting to Carl Paladino, Treasurer-Controller: Ed Kruse, director of Accounting; Tom Brunner, director of Finances; and Vito Bruno, director of Corporate Audit and Procedures.

Other appointments include:

At Calverton, Dick Barton, deputy general manager, Calverton Operations, and acting manager, Plant 7; Bob Watkins, director, Material and Logistics; Bob Saelzer, director, Quality Control; Herb Grossman, director, Engineering; Tom Merritt, manager, Plant 6; Chuck Kroupa, manager, Resources and Finances; Paul Sachse, acting manager, Industrial Safety. All report to Vice President George Skurla, general manager of Calverton Operations.

What next?

Everytime the Grumman HU-16 Albatross is written off as being obsolete in these days of high-and fast-flying jet planes, someone always thinks up another role for the "old" amphibian to play. When it was first introduced, the Albatross was an air-sea rescue plane. It has also been used in the Arctic, outfitted with skis, for the rescue mission. Then it was equipped with electronic gear for anti-submarine warfare work, and, just lately, put into use as a commuter plane in the islands.

Chalk up one more chore: from out San Francisco way comes word that the Albatross is now being used by the Coast Guard as a pollution-spotting amphibian. According to the San Francisco Chronicle, the Coast Guard equipped an Albatross with infrared and ultraviolet sensing gear and is now flying the plane up and down the coastline to detect slicks, measure and define them, and report them to the Environmental Protection Agency.

She's big, and noisy, and not too comfortable—but the Albatross is certainly a grand old lady of the skies.

Calendar

Notice of events for period July 27 to August 24 should reach PLANE NEWS by July 18.

Amateur Radio Club: Wed., July 18, 5 p.m., Radio Station WA2LQ0, on Plt. 5 roof, local, business, guests welcome. E. Goodman, Ext. 87125.

Family Campers: Rally, July 27, 28, 29, Wingdale, N. Y. Rally, August 10, 11, 12, W. Melford, N. Y. Contact Herman Heinlein, Ext. 7903.

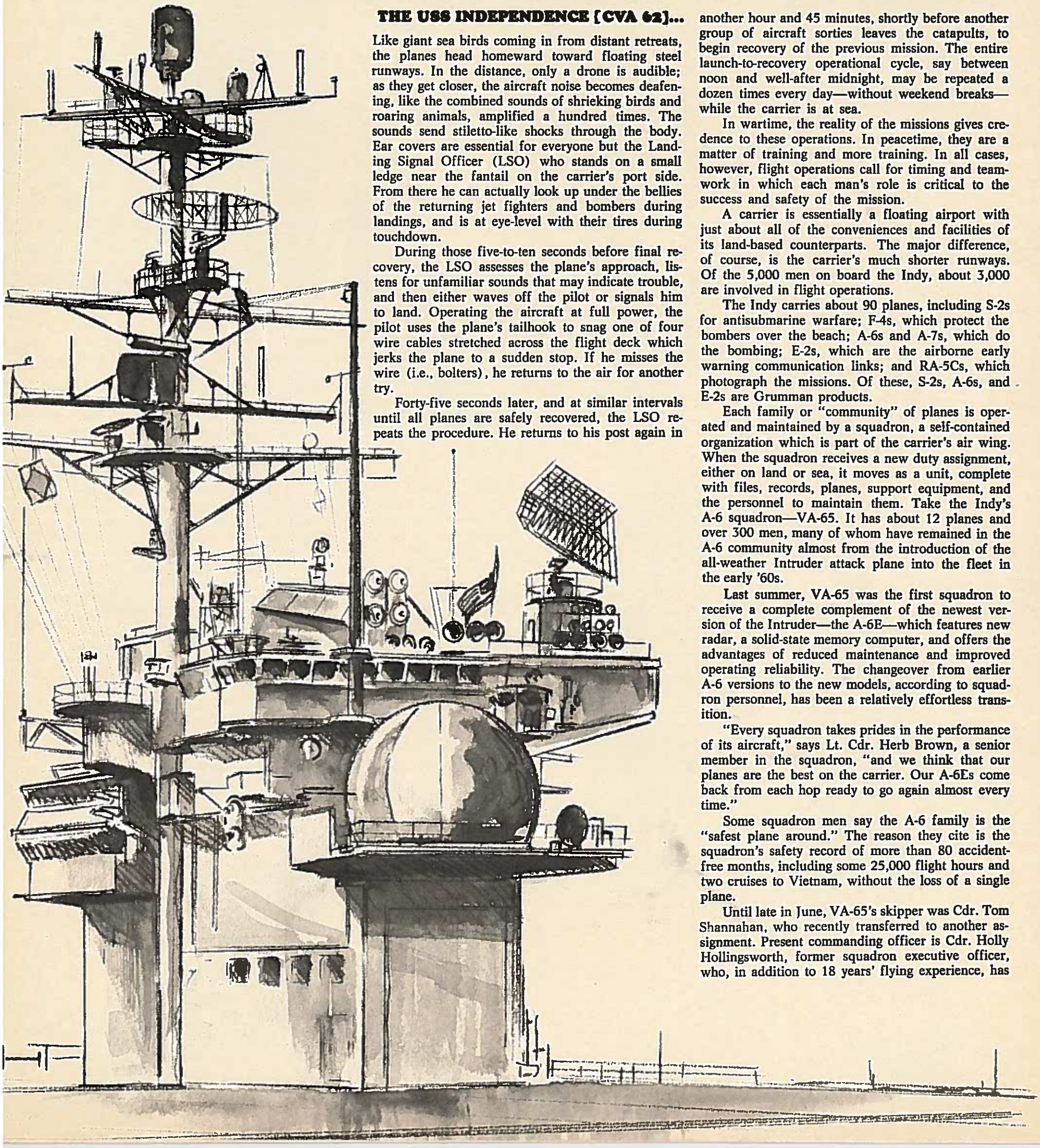
Flying Club: Fri., July 13, Plt. 28, film & presentation of trophies, guests welcome. Betty Schledorn, Ext. 7372/86827.

Soccer Club: Players needed for '73-'74 season, experienced or non-experienced. Scotty Mayors, Ext. 84444.

Sorry about that . . .

Congratulations are in order for Jardslav F. Bocek, who is presently assigned to Point Mugu, California, on his 25th anniversary with the company. And we apologize for not including the photo in the last issue of Plane News.

on board



THE USS INDEPENDENCE [CVA 62]...

Like giant sea birds coming in from distant retreats, the planes head homeward toward floating steel runways. In the distance, only a drone is audible; as they get closer, the aircraft noise becomes deafening, like the combined sounds of shrieking birds and roaring animals, amplified a hundred times. The sounds send stiletto-like shocks through the body. Ear covers are essential for everyone but the Landing Signal Officer (LSO) who stands on a small ledge near the fantail on the carrier's port side. From there he can actually look up under the bellies of the returning jet fighters and bombers during landings, and is at eye-level with their tires during touchdown.

During those five-to-ten seconds before final recovery, the LSO assesses the plane's approach, listens for unfamiliar sounds that may indicate trouble, and then either waves off the pilot or signals him to land. Operating the aircraft at full power, the pilot uses the plane's tailhook to snag one of four wire cables stretched across the flight deck which jerks the plane to a sudden stop. If he misses the wire (i.e., bolters), he returns to the air for another try.

Forty-five seconds later, and at similar intervals until all planes are safely recovered, the LSO repeats the procedure. He returns to his post again in another hour and 45 minutes, shortly before another group of aircraft sorties leaves the catapults, to begin recovery of the previous mission. The entire launch-to-recovery operational cycle, say between noon and well-after midnight, may be repeated a dozen times every day—without weekend breaks—while the carrier is at sea.

In wartime, the reality of the missions gives credence to these operations. In peacetime, they are a matter of training and more training. In all cases, however, flight operations call for timing and teamwork in which each man's role is critical to the success and safety of the mission.

A carrier is essentially a floating airport with just about all of the conveniences and facilities of its land-based counterparts. The major difference, of course, is the carrier's much shorter runways. Of the 5,000 men on board the Indy, about 3,000 are involved in flight operations.

The Indy carries about 90 planes, including S-2s for antisubmarine warfare; F-4s, which protect the bombers over the beach; A-6s and A-7s, which do the bombing; E-2s, which are the airborne early warning communication links; and RA-5Cs, which photograph the missions. Of these, S-2s, A-6s, and E-2s are Grumman products.

Each family or "community" of planes is operated and maintained by a squadron, a self-contained organization which is part of the carrier's air wing. When the squadron receives a new duty assignment, either on land or sea, it moves as a unit, complete with files, records, planes, support equipment, and the personnel to maintain them. Take the Indy's A-6 squadron—VA-65. It has about 12 planes and over 300 men, many of whom have remained in the A-6 community almost from the introduction of the all-weather Intruder attack plane into the fleet in the early '60s.

Last summer, VA-65 was the first squadron to receive a complete complement of the newest version of the Intruder—the A-6E—which features new radar, a solid-state memory computer, and offers the advantages of reduced maintenance and improved operating reliability. The changeover from earlier A-6 versions to the new models, according to squadron personnel, has been a relatively effortless transition.

"Every squadron takes prides in the performance of its aircraft," says Lt. Cdr. Herb Brown, a senior member in the squadron, "and we think that our planes are the best on the carrier. Our A-6Es come back from each hop ready to go again almost every time."

Some squadron men say the A-6 family is the "safest plane around." The reason they cite is the squadron's safety record of more than 80 accident-free months, including some 25,000 flight hours and two cruises to Vietnam, without the loss of a single plane.

Until late in June, VA-65's skipper was Cdr. Tom Shannahan, who recently transferred to another assignment. Present commanding officer is Cdr. Holly Hollingsworth, former squadron executive officer, who, in addition to 18 years' flying experience, has

held such carrier posts as flight-deck, catapult, and strike operations officer.

In each squadron air crew, a pilot teams up with a bombardier/navigator (B/N), who mans the A-6 weapons system consisting of radar, computer, inertial guidance platform, armament and control unit.

Everything that happens on the Independence—at least as far as VA-65 is concerned—begins in the ready room, a large work-and-recreation compartment located several decks below the flight deck. There are three closed-circuit television sets in the room: one for shipboard Integrated Operations Intelligence Center (IOIC) broadcasts, including preflight briefings; another for Pilot Landing Aid Television (PLAT), which monitors and records all landings; and the third is WIND-TV, for viewing movies during off-hours.

"It's the only TV station that shows X-rated movies during prime time," says one wag.

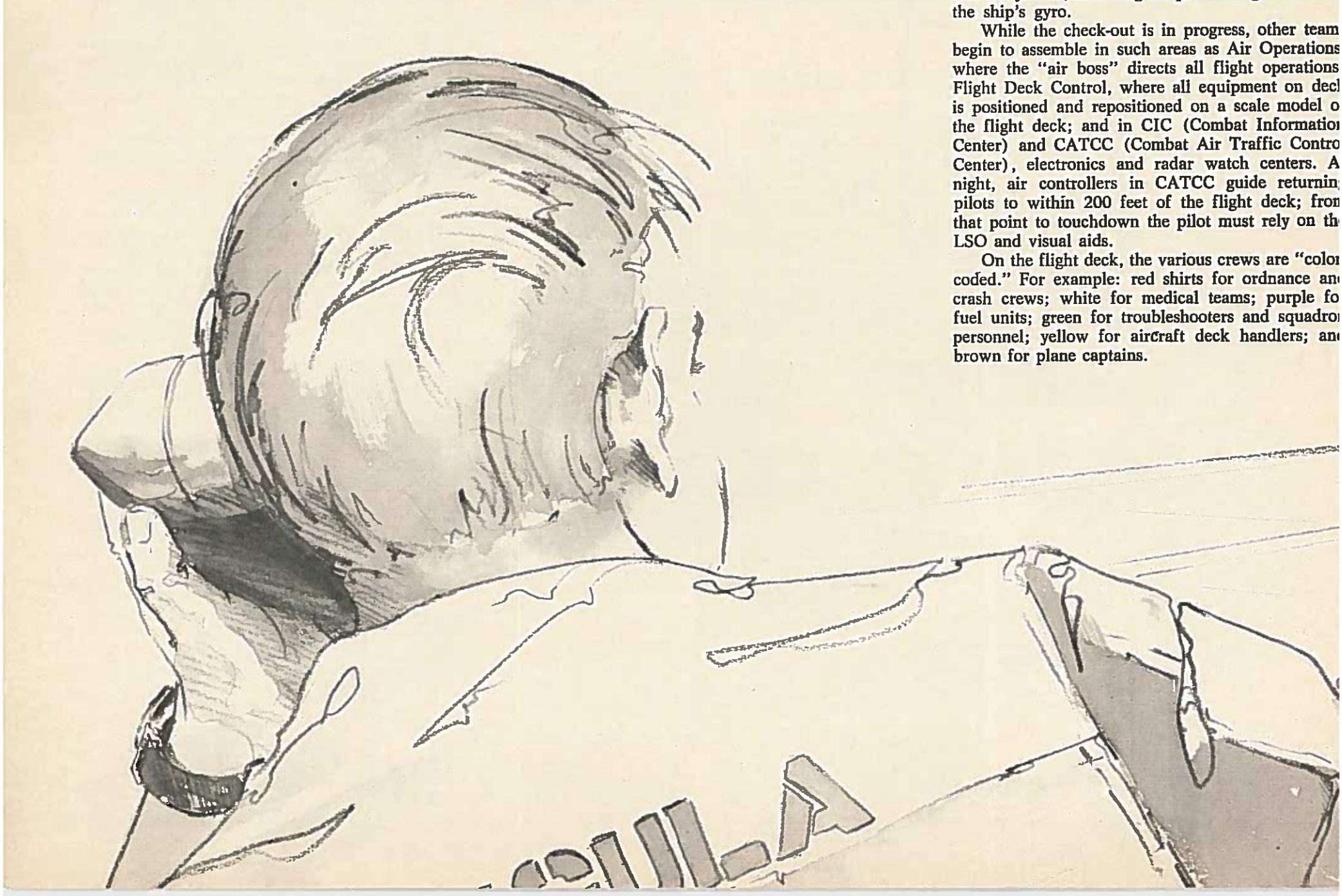
Flight plans are generally made up the night before the scheduled operations. The ship's schedule for all missions and individual squadron participation is made up in Strike Operations. From this, each squadron prepares its own flight schedule to coordinate launch and recovery times, mission fuel- and armament-requirements, and the like. According to Lt. Dusty Rhoades, who makes up VA-65's flight schedules, "If the ship's schedule isn't ready until midnight, or even later, we may have to stay up most of the night to prepare ours so that it will be ready first thing in the morning."

If the first launch is scheduled for 1 p.m., the mission briefing begins at 11:15 a.m. so the pilots and B/Ns will still have time to board their aircraft 45 minutes before launch. Prior to the briefings, operations officer Lt. Cdr. Dick Allen (nicknamed "Sweetpea") uses the morning hours for AOMs (all officers meetings) to discuss such things as administrative or safety procedures.

Mission briefings begin with televised weathe reports, followed by intelligence briefings from IOIC. At this time, each squadron receives specifi instructions on its role in the mission, and also learns what other squadrons are expected to do. Th flight crews leave for their planes 45 minutes prio to launch time. Inside their aircraft, they check ou all A-6 systems, including the plane's alignment with the ship's gyro.

While the check-out is in progress, other team begin to assemble in such areas as Air Operations where the "air boss" directs all flight operations Flight Deck Control, where all equipment on deck is positioned and repositioned on a scale model o the flight deck; and in CIC (Combat Information Center) and CATCC (Combat Air Traffic Control Center), electronics and radar watch centers. A night, air controllers in CATCC guide returnin pilots to within 200 feet of the flight deck; from that point to touchdown the pilot must rely on th LSO and visual aids.

On the flight deck, the various crews are "color coded." For example: red shirts for ordnance an crash crews; white for medical teams; purple fo fuel units; green for troubleshooters and squadron personnel; yellow for aircraft deck handlers; an brown for plane captains.



"It's a point of pride," says VA-65 pilot Lt. Mark Brady, "to have the first plane punch off at precisely the scheduled time."

The sleek jets leave the catapults with bursts of smoke and fiery engines, leaving behind enough heat to warm a blast furnace. As soon as one plane is off, another moves into position. Two, three, and even four planes may be launched simultaneously. A fully loaded A-6, carrying both fuel and weapons, is launched from the carrier at 143 knots and weighs more than 58,000 pounds. During recovery, the A-6 catches the wire at about 115 knots.

"On launching, almost everything is done for you," says Lt. Jack Regula, a pilot who is also one of VA-65's LSOs. "But recovery is more difficult. There are more chances for human error. And you have to fly within six feet of the carrier just to get on board, not necessarily to make an acceptable landing."

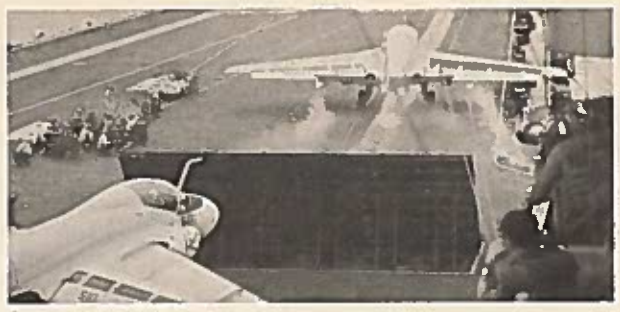
With their missions completed, the pilot and B/Ns return to the ready room for debriefing sessions. On the flight deck and in the hangar, the maintenance crews go to work to perform everything from routine checks to major surgery on the aircraft. During actual flight operations, maintenance is often a matter of preparing the plane for the next hop; the time-consuming work is reserved for the night hours when the rest of the ship is relatively quiet.

VA-65's maintenance officer is Lt. Cdr. Bruce Bremner, a pilot, who is assisted by Lt. (jg) Hugh Chitwood, Chief Joe Lang, and some 200 men. Returning pilots report any problems, anomalies, or "gripes" that need immediate attention. Though the pressures are intense, it's up to the maintenance crews to keep the planes in safe flying condition.

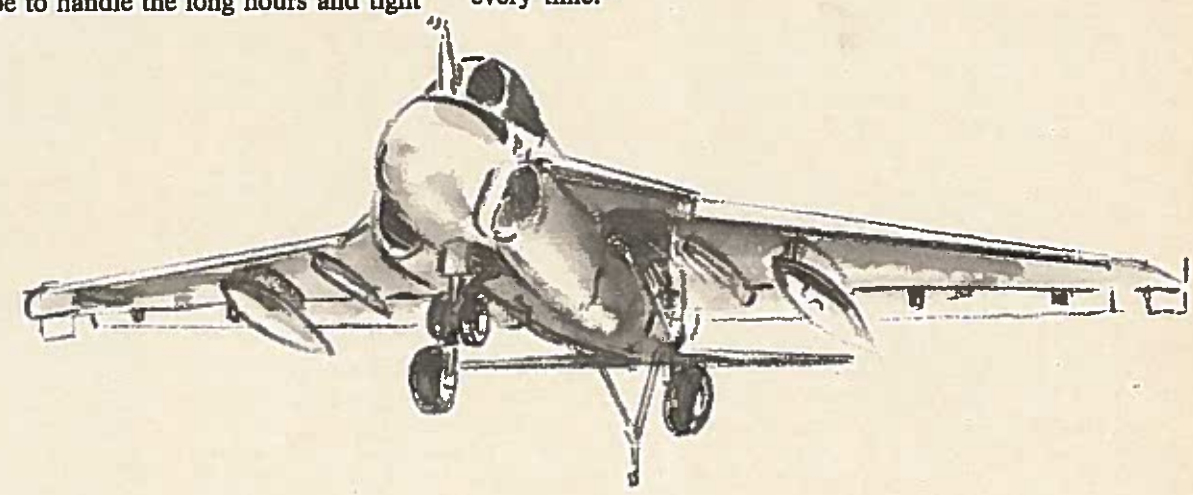
"During actual flight operations, when we're pressed for time, we have to work by priorities," says Chitwood. "We don't worry about a squeak if we have to give our attention to correcting a rough engine. Then we do the major maintenance work at night when operations are over."

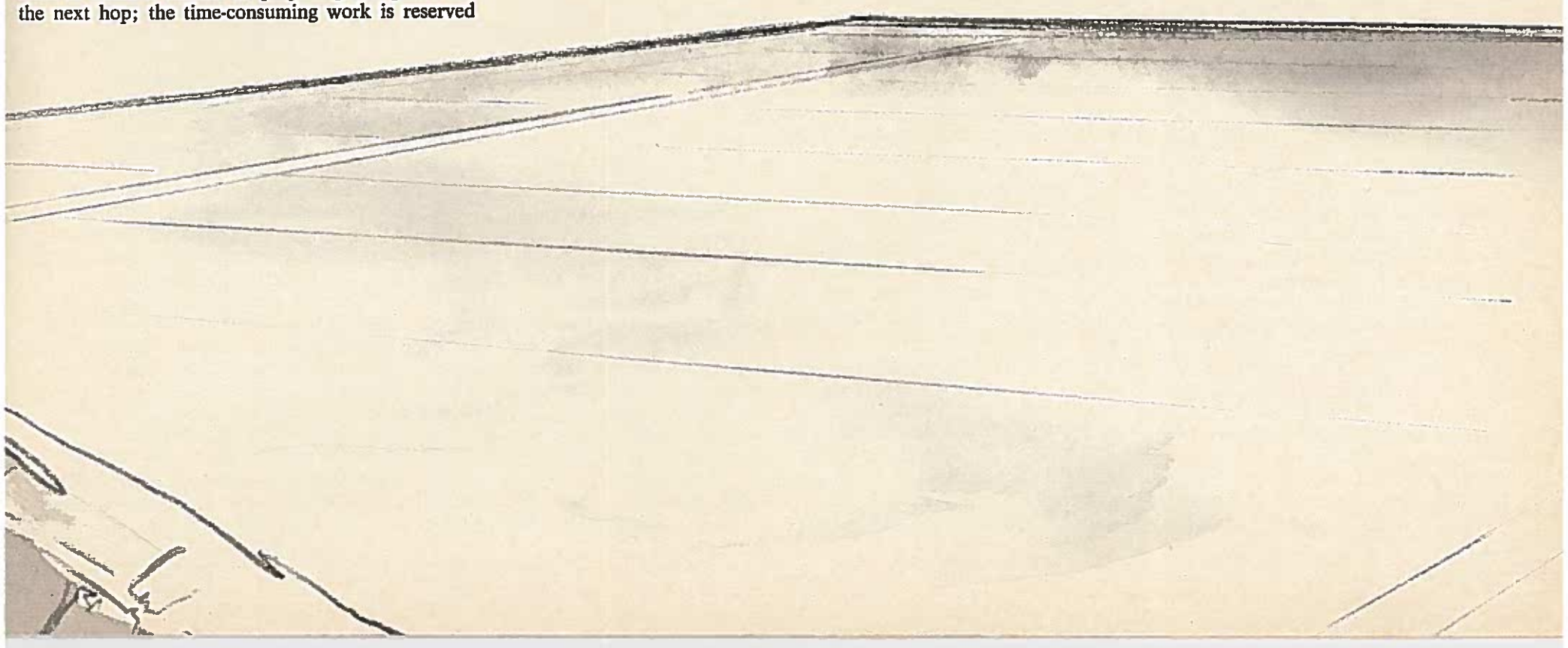
Adds Chief Lang: "There are no short cuts. Time is critical and we have to do everything expeditiously. Sometimes we have less than an hour to get a plane ready for its next flight."

Everyone on board has a job to do and must keep in top shape to handle the long hours and tight



schedules. The pressures are intense and time is always "not enough." Sleep for some is a matter of catching it when they can. But the operations go on, and the planes must be top performers every time they leave the flight deck. And, with VA-65 air crews depending on the A-6E's high reliability and reduced maintenance, it's understandable when pilot Herb Brown smiles when he says: "Our A-6Es come back from each hop ready to go again almost every time."





Navy's man at Bethpage

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that can be put rather simply and to the point, and it's no more than making sure that the Navy gets the quality product on time at agreed-to cost.

"The complex portion of the job is how to achieve that. For example, we can't duplicate, job for job and discipline for discipline, the organization that Grumman has. Yet, we have to know a good deal about the contractor's work, quality, scheduling, performance and costs. We have to have high visibility."

That's provided by the several Naval officers, who are program coordinators, and a permanent civil service staff located at Grumman, for the most part at Plant 35. For general purposes, these people — some of whom have been here for 20, 25, or 30 years or more—fall roughly into five functions: Quality Assurance (the largest in terms of people), headed by Bill Rourke; Contracts, led by Harold Hiller; Engineering, under Lt. Cdr. Jack Battenburg; Industrial Management, supervised by Dom Granite; and Administration, headed by Ms. Mertie Bement. This relatively small group (if measured against the Grumman Aerospace workforce) functions as the Government's on-site agents, working side by side with people in the Company and sharing the common concern of getting good products to the user. As it was put by Rourke:

"Grumman wants to build, the Navy wants to fly, so we're working toward the same goal."

In essence, then, the skills and talents of the Grumman people are "mirrored" in the Navy categories:

- In Quality Assurance are people dealing with electronics, structures, metrology, materials and processes, cost/pricing analysis, standards and performance, and so on.
- Contracts personnel are engaged in negotiations and contract administration, proposal reviews, pricing, independent estimating and auditing, spares, etc.
- Those in Engineering review designs, see that specifications are met, check test plans, deal with an always-continuing series of engineering change proposals, and so forth.
- People in Industrial Management supply needed tools (and reallocate them as need demands), handle support operations, develop a spares inventory, do site-activation jobs, check on production-flow schedules and notify the contractor of slippages, and so on.

"We don't hide anything," comments Captain Belter. "It doesn't make sense to . . . and Grumman follows the same policy. That creates a climate of mutual trust. Believe me, that's essential."

The Captain casually hooks a leg over an arm of his chair, leans forward, and talks of the crucial need for buyer and seller to operate, as much as possible, with mutual knowledge of the goals.

When David Packard was on the scene in the Department of Defense, he explained, there was a philosophy of "involvement." The motivating idea was that the Government should be involved with the contractor so as to understand better the strengths and weaknesses of each contractor. In that way, he thought, the Government would get better materials and a better product at lower cost.

Cooperation the key

But, as Captain Belter remarks, "There's more to it than that, and if I had to point my finger at one factor, it's a spirit of cooperation. No matter how good the hardware is, no matter how high the mountain of necessary paperwork is, no matter how many grueling hours have to be put in, it's all for naught without real cooperation. There has to be mutual trust . . . no collusion, just close cooperation in order to get the job done."

As part of that cooperative spirit, the Captain points out that when problems arise "There's an honest, mutual effort to look behind an event in order to appreciate why and how it occurred. We try not to leap to an automatic conclusion that the contractor is at fault; and Grumman doesn't do it on its part. Both of us realize that the most productive route is through *understanding*, and changes as needed, to get the job done."

That sort of understanding has proved very effective, as demonstrated by the variety of aircraft that Grumman builds for the Navy, says the Captain, who goes on to remark:

- "The A-6 was bold in design at the beginning and remains bold in its A-6E configuration. It's working effectively and reliably, and it's far and away the best all-weather attack aircraft in the world.
- "The E-2 Hawkeye provides eyes for the Fleet. The plane is essential to Fleet commanders, who demand and must have both the very high system performance *and* high reliability of the E-2C.
- "The EA-6B is a truly unique aircraft and is a dramatic advance in capability and systems performance over earlier tactical electronic warfare airplanes. We're now accepting EA-6Bs for the Fleet that have orders of magnitude in greater system capability than any existing aircraft system.
- "And there's the F-14, which promises to be better than any of them."

All of these aircraft have been tested and proved successful in "the real environment" where the action is. But before any "buy" by the Navy, each new production aircraft is intensively and extensively checked by a Navy/Grumman team. And out in Calverton, at Plant 6 final assembly and Plant 7 production flight acceptance, the Navy has set up what is called a "toll gate" —a point at which the Navy reserves the right to say, in effect, "We won't buy it." So then the Company has to take action to correct any "crabs" or deficiencies to make certain that the aircraft meets the previously agreed-to standards. It is there, at the end of the production line, that the Navy has 22 of its more than 80 Quality Assurance people, led by Joe Picolantonio; *and* there, too, are the pilots who give the okay for a plane to fly over the fence — a responsibility delegated to Cdr. Jim Roth.

"As you can see," says Captain Belter, "there aren't many of us, as compared with 22,000 Grummanites. Here we rely on the contractor and his good faith for the details of contract performance, although we keep basic records that we use to ascertain overall contract performance. And I must say that I don't know of any place where the critical cooperation is finer than it is here."

That's quite a kudo, for the Captain has been around. He went into the Navy in 1946 and spent four years in college and in flight training. He got his wings early in '50 and went into the Fleet as a flying midshipman. He was also a flight instructor at Pensacola, and in VC-6 flew North American's trimotor AJ Savage. In addition, he was one of the first flight instructors in the Douglas A-3 Sky Warrior.

He then went to Navy post-graduate school at Monterey, finishing in '63 and doing a master's thesis on aerothermodynamics. It was back to sea again, on the USS Bon Homme Richard and USS Independence, where he was officer in charge of VAH-4. He was at the Naval Air Test Center at Patuxent River in '66-'68 as head of the Attack Branch, Weapon Systems Test, as the A-6 Intruder and A-7 were in trials. "I flew just about everything they had down there, plus the F-111B at Calverton," he said.

"In NAVAIR, I was A-6 design officer, relieving Cdr. Andy Yates. I met a lot of Grumman people there . . . Ross Mickey, Bill Trillo, Dan Collins, Joe Novak . . . . lots of people. Then I was honored to be selected for a one-year tour in South Asia as Assistant Chief of Staff, Commander Task Force 77. That was in '70-'71. Then my wife, Buff, and I came here—and again I came to relieve Captain Yates."

So Captain Belter has the experience to tackle a job in which he's contract officer, ambassador, communicator, and negotiator. As for what he thinks of his current assignment:

"Being here as NAVPLANTREP at Grumman is sort of like being aboard ship. When you're at sea with someone, you get to know people, and you're able generally to judge what a person is likely to do in a dynamic situation. That sea training, I think, is a great foundation for what I'm doing now—essentially, dealing with people. Cdr. George Rothrock, assistant NAVPLANTREP, and I work particularly well together. He is retiring in August, and he will be missed by all of us. He is one of the finest people I've ever known, and can really meld the talents of our NAVPRO folk together."

As for the Company, he says:

"Gruman builds some of the finest aircraft in the world. The F-14, is far and away the best fighter the Navy's seen. It's going to be a real winner. The Navy knows it and Grumman knows it.

"But the crucial point I want to make is that *cooperation is the key to success*. Through give and take each side gets a better notion of how well we're doing. Each learns from the other. Occasionally, there's some friction—which isn't necessarily bad at all since it's the genesis of resolution of a problem. It leads to a better product, and that's the way it should be for both the Navy and the contractor."

Tourney champs. Members of the Grumman varsity softball team show off the team trophy they received for capturing the East Coast Invitational title in Providence, R. I. to Vice President Tom Rozzi, (2nd L) and Bob Benn, who heads GAA. Team members are: (L to R) manager Jack Keane, Hal Manaskie, and Joe Cavaluzzo. (Photo by Bob Settles)

Sports round-up . . .

The Grumman varsity softball team has high hopes for this season, and they are on the right path apparently since they won the East Coast Invitational Tourney at Providence, R. I., recently.

The Grumman varsity, which last won this tournament in 1970, had a clean sweep of five games with 22-0 and 11-5 victories over the Nassau County police team in the finals.

Jim Verteramo was named the tourney's most valuable player and was was joined by four of his Grumman teammates on the all-tourney roster. Other all-stars from the Grumman varsity were Dom Pagnossi, Joe Cavaluzzo, Glen Dorch, and Bill Luft.

Kirillin grabs singles title

On the tennis courts, Al Kirillin is a greedy man; he had already won the doubles crown with varsity teammate, Tom Guarino, in the third annual all-Grumman tennis tourney. But as the singles tourney, involving 83 tennis buffs, moved into the final match, there was Kirillin again slamming away at the ball, defeating George Salt, 6-3, and 6-1. The final result left little doubt who is the king of the tennis courts at Grumman this season.

Golf team wins

Republic and Photocircuits fell to the Grumman varsity golf team in recent weeks by identical 7½-½ scores. Against Republic, Steve Gray fired a three-over 59 for 14 holes to lead the varsity contingent. Captain Jim Alverson registered 63, Tony Cisco, 61, and John Malanczuk, 65.

In their third straight victory of the L.I. Industrial season, the varsity golfers swept past Photocircuits as Alverson shot 49—one over par—for 12 holes on the Black course at Bethpage State Park, and his partner Bill Suppa finished one stroke back with 50. Tony Cisco carded 51 and Steve Gray 50 to round out the Grumman scoring.

Lambert catches all

There were a lot of tall fish stories recently at the Glen Arm, Maryland plant after the annual shad tournament, but they all focused around the man who ran away with the top prizes—Jesse Lambert.

Last year, Lambert was satisfied to hook the first deep-bellied herring, but this year he not only landed the first catch, but the most shad and the largest—now that's a fish story if we ever heard one.

Table tennis, anyone?

The newly formed Grumman table tennis club challenged the high-ranked Huntington table tennis club recently. On June 6, the hastily formed 16-man Grumman squad—composed of many of the champs in the GAA table tennis tourneys—initiated their team activity. The final score, 630 to 370 team points, did not seem to dampen the paddle enthusiasts. It just hardened their desire to practice even harder for the upcoming rematch.

Frank Malone, the new president of the club, says that the club is open to all, beginners and experts, men and women. The club meets every Thursday, 7 to 11 p.m., in Plant 24.

Mid-season battle cry on diamond: 'Dee-fense'

Dee-fense has been the name of the game lately in league softball play. It might be that the players are finally getting into shape, but one thing is certain the scores are lower and there are far less errors.

Take the Mets of the Tuesday National league; they won their first game of the season after four unsuccessful attempts by beating the Supporters, 7-3. How did they do it? The Mets do have Mike Sabia, hitting .910, but it was Mike Gurello's throw from deep centerfield to catcher Frank Toscano that cut down a potential run and killed a budding rally.

Jim Sharp helped lead the Hellcats to victory over the Campbell Kids, 6-5, with a grand slammer. But it was Tony Marchese in centerfield who kept the losers from getting cheap hits by making two shoestring catches.

The Condors moved into a first-place tie with the Jets by defeating the Mohawks, 10-4. It was the fielding trio of shortstop Bob DeCicco, second-baseman Pete Buddine and first-baseman Ken Kretchman that kept the rallies down with three double plays.

Other Tuesday night highlights: The Jets beat the Druids, 12-8, behind the powerful hitting of Brian Scheu, who slugged a triple and home run. Woodpeckers' Bruce Armour saved the game by pinch hitting a single with two outs in the sixth inning to drive in the tying run, and an error on the same play cost the Campbell Kids their fourth loss of the season, 10-7. The Mohawks, with Jerry Lehecka hitting a homer, won their first game by trouncing the Druids, 8-3.

In Plant 2 second lunch league play, LEM-stock blanked the Leakers, 11-0. Floyd Miller and C. Jones both hit triples with two men on, while the losers were held to only four hits. But the Leakers rebounded swiftly in their next game to beat the Uniques, 13-10. This time they had 15 hits with Sparky Gunther knocking out two doubles and pitching his third victory of the season.

In Wednesday night play, Willy's Warriors remained undefeated, trouncing the Jets, 22-14, and the Egg Beaters, 19-2. Power hitters for the Warriors were Joe Braun, who went four-for-five with one triple, including five RBIs during the first win, and Jim Karanik, who slammed a homer in the second.

The Shadows proved to be too much for the Prowlers in a 29-4 game. Rob Ogilvie, who is hitting .916, supplied a double and a home run for the winners, along with Jim Schwaab, who slammed two homers and a double. The winners outhit the Prowlers, 38 to 12.

In Monday night action, the Monopoles outslugged the Top Kats, 16-6. Chris Hoffman slammed two homers, and Ed Gabriel added extra punch with a home run and two singles. The Prowlers chalked up two victories over the Top Kats, 18-3 and 14-7.

Tee clinic

When's the last time you got golf instructions? Was it from your golf partner . . . or your brother-in-law . . . or the guy (or girl) at the next desk? And did your game improve . . . or get worse?

Why not do yourself a favor and sign up for a series of golf instructions scheduled by GAA, starting Tuesday, July 17, and continuing July 20. Mike Cherry of the GAA staff, a PGA member and teaching pro for the past 20 years, will conduct the clinic, with a couple of the Grumman varsity golfers assisting him.

On the agenda: stance, grip, swing, pitching and chipping, and many of the other fundamentals that are so easily mislaid along the fairway. Remember, call Mike at Ext. 2133 or 2269 to sign up for the course which will be conducted at the south end of the Plant 2 field. Oh yes, bring along an iron to get in the swing of things.

Pinehurst No. 2

And don't forget ladies and gentlemen, the second mixed Pinehurst of the season is scheduled for Wednesday, July 18, at Bethpage State Park. Greens fee, $5 each person, includes kickers prizes. Call Mike Cherry to reserve a spot in the tourney.

Army-Tennessee tix

When the Corps of Cadets launches into "On Brave Old Army Team" at Michie Stadium on September 22, the West Point football team will probably need that exhortation. Their opponent: the ever-tough Tennessee Volunteers. GAA has tickets for that interesting match-up at $6 apiece. Bus tickets will be available also at $3.50 apiece. For further information, call Chet Baumgartner, Ext. 2133.

Discount tix

If you wish to spend a night under the stars, why not go to the Jones Beach theatre to see 'Carousel'. Discount tickets are available at all ESO offices.

For Rent

MOTOR HOME: '72 Winnebago, compl. self-contained, with a/c, generator, low rates, 724-7504.

APT.: Farmingdale, 6 rms., make own heat/elec., $265/mo., occup. July 1. 293-2393.

HOUSE: Medford, ranch, 3 bdrms., kitch., dinette, liv. rm., o/h, fenced yd., nr. shops, school, LIE, car/half gar., avail. Aug. 1, $250/mo. HR 3-4732.

HOUSE: Fire Island, Ocean Bay Park, furnish, 50 ft. from ocean, monthly. 569-0634.

HOUSE: Stowe area, A-frame mhalet, $125/wk., D. Pettingill, Ext. 7311.

HOUSE: Port Jefferson, 4 bedrms., liv. din., family rms., wd. ¾ acre, sun deck, beach rights, $400/mo., July to Aug. '74. 473-4828.

HOUSE: 4 large rms., full cellar, gar., nr. LIRR, shops, $245/mo. TU 4-9059.

TENT TRAILER: Coleman hdtp., 65 sleeper, inc. all access., $11/day. 751-1256.

HOUSE: Brightwaters, 2 bedrs., liv. rm., kitch., bath, firepl., 2 car gar., $295/mo., LT 9-6588 after 6 p.m.

APARTMENT: Merrick, 4 rms. MA 3-1381.

COTTAGE: Loon Lake, Adirondacks, priv. beach, boats, all outdr. games. 742-4388.

ROOM: Furnished., nr. Grumman, priv. WE 5-2466.

HOUSE TRAILER: Ludlow, Vt., on Grumman ski club prop., 3 bedrms, sleeps 7, nr. lakes, golf, etc., avail. June thru Sept. $95/wk. 694-9687.

For Adoption

BOXER: 1 yr., female, aks., father champ., good w/children. 261-3790.

KITTENS: Gray, white, blk./white, born April 29, 3 male, 1 female. 586-0757.

KITTENS: Seven, some all wht., gfirey, 7 wks. old. IV 5-1315.

Swap

FLOWERS: 500 Pachysandra, for iris, narcissus, violets, lily of valleys, etc. 289-7463.

Wanted

CORVAIR: Convertible, '63 or '64, condition import., Pete, Ext. 3445.

For Sale

HOUSE: Rocky Point, 3 yr., 3 bedrm. ranch, din. rm., basemt., s/s, w/w, cedar shingles, pvt. beach rights, $29,900. 744-1741.

BUICK: '56 Special, 2 dr. hdtp., $100. 473-0776.

DATSUN: '71, 4 dr., red w/wht. vinyl tp., tape deck, 28,000 mi., $1,400. 292-0882.

BUICK: '68 Electra, a/c, p/s, p/b, all pwr., 45,000 mi., $1,350. firm. 547-7791.

MISC.: Baby carriage, thayer, quilted, blue, 2 position mattress, carriage net, carry-all bag, $35; baby crib, Edison, matt. and bumpers, both sides lower, Fr. Prov., $65; dinnette set, table w/ 2 ext., 4 chairs, formica backs, formica top, $20; 21 in. TV, Emerson, b/w, swivel table, blond finish, needs minor repairs, $20. After 5 p.m. 826-7904.

VW: '71, lugg. rack, blue, ask. $1400. 466-3898.

DODGE: '66 Dart GT, V-8, 4 spd., disc brakes, r/h, buckets, $650. 261-1561.

SEA SKIFF: 28 ft. Ulrichsen, 225 hp, Chrysler, hemi, fly bridge, s/s, $2800. MO 5-6033.

CHEVY: '68 Impala wagon, power, snows on rims, 69,000 mi., $800. 724-2490.

HOUSE: N. Massapequa, fin. bsmt., oversized gar., 4 bdrm., 1½ bath, pan. lvg. rm., kit., den, eat-in-kit., ¼ acre lndscpd. lot, $45,000. After 5:30 p.m. SU 5-7152.

BOAT: 18 ft. Imperial fbgls., 75 hp Evinrude, elect. start, alternator, tilt trailer, xtras. IV 9-9388.

ENCYCLOPEDIA: Britannica full set, $25. After 6 p.m. 681-5193.

SURF BOARD: 9 ft. 6 in., $[illegible] .MO 9-2892.

OPEL: '69 auto, 49,000 mi., orig. owner, $700. 698-4737.

MBG: '68 conv., hood & fender damage, $450. 273-2546.

MOTORCYCLE: '70 Ducati, 250 cc, o.h.c. engine, gar., 1200 mi., $395. 271-3152.

HOUSE: Plainview, ranch, 3 bdrm, 2 full bath, fieldstone fireplace, all appl., 2 car gar, ask. $58,900. 692-2738.

MISC.: Baby Carriage, collapsible w/ port-a-bed; circa 1930 chest of drawers, RCA console radio, no reasonable offer refused. Anytime call 249-0922.

For Sale

TRAILER: '68 Apache mesa, sleep 6, ice box, dinette, 10 ft. x 20 ft. canopy, spare, $775. 475-0805.

HOUSE: Cape, 3 bdrm., s/s, w/w, full dormer, lndscpd., patio, fenced, inground pool. 698-1990.

FIREWOOD: Approx. 1 cord, you haul, $12 firm. After 6 p.m. 587-3203.

HOUSE: 8 room col., 4 bdrm., fam. room, full bsmt. w/laundry rm. & panld. work shop, s/s, w/w, all appl. incly., 1/3 acre trees, occup. after 6/23, ask. $42,500. 549-5650.

CLAM BOAT: 16 ft. fbgls. w/cabin, '72 50-hp Johnson, steering & controls, '73 trailer, $1150. After 6 p.m. 472-2237.

PROPERTY: Shoreham, Harvard Rd., approx. 1/3 acre, beach rights. (805) 487-8389.

OCEANIC POOL: 18 ft. x 4 ft. thru wall filter, 15 in. wide sit-on redwood deck, filter, deluxe fold up ladder, vacuum, skimmer, cover, $325. 661-0483.

PONTIAC: '69 LeMans, 2 dr. hd. top, V-8, auto, pwr. steer, am/fm, 2 snows w/rims, orig. owner, $1250. After 6 p.m. 883-5949.

ROVER: '66 model 2000, needs work to run, $200 or best offer. 423-1270.

For Sale

MISC.: Dining rm. set, oak, 60 in. x 40 in., oblong table, 2 leaf ext., 5 chairs, server, china closet, buffet, $100; American flyer-freight train set, 3/16 gauge, $15; coffe table, leather insert, $15. WA 2-4810.

DAYSAILER: 24 x 7 x 2 ft., keel/centerbd., classic wooden hull, main jibs, spinnaker, $800. 669-1715.

ORGAN: Hammond, mod. J11, dual keybd., walnut, ask. $550. Evgs. 727-6807.

SAILFISH: Alcort Mark II, dacron sails, ask. $300. HR 3-2435.

CHAIRS: Six oak, padded seats, $75 or best offer. 732-8825.

CONDOMINIUM: Stony Brook-Strathmore Gate, 2 bdrm, 1½ bath, central a/c, gar. porch enclosure, pool, clubhouse facilities, $35,000. 751-1866 for appt.

WURLITZER: '72 console, walnut fin., elec. heat rod, bench, $700. LT 9-9198.

VW ENGINE: '64, 40 hp, comp. rebuilt, $180. 273-6239.

WALL OVEN: Hardwick, counter top range, natural gas, coppertone, reasonable. 585-4734.

HONDA: '69, 175 cc, street, $375. 277-4563.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.

Type or print ad on form available at Employees Service and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

HOUSE: East Meadow, Birchwood cape, brick, center-hall, 4 bdrm, 2 bath, gar, fin. bsmt., custom kit., w/w, s/s, all appl., immed. occup., $42,000. 481-0010.

BABY FURN.: Crib. Fr. prov. matt. & bumpers, $65; dressing table, oak hill white, $18; high chair, oak hill, $15. CH 8-8927.

EXPANSION TANK: Ex-trol, for hot water system, new, perm. pressurized diaphragm type, $10. 586-0757.

TIRES: L-60 w/crager mag wheels, air shocks, for Ford or Cougar, $200. MO 9-7987.

MINI-BIKE: Rupp scrambler 4 h.p. tecumser eng., Mercury clutch, disc brakes, jack shaft, safety helmet, $95. After 6 p.m. 423-5722.

FORD: '72 Pinto wagon, auto., 4 cyl., 2000 cc eng., w/w, roof rack, 8 track tape, chrome trim, $1675. 698-5441.

PLYMOUTH: '72 Cuda, 340, 4 spd. air shocks, bucket seats, tach, tint window, am/fm, 17,000 mi., $2750. 269-0732.

SAILBOAT: Dinghy, anchor, life jackets, 4 main, 2 jib sails, after 6 p.m. AN 1-1364.

MISC FURN.: Stereo, lamps, 2 bdrm. set, 1 dble. bed, -1 single bed, wrought iron kit. set, two piece lvg. rm. couch. 731-9094.

CAMERA: Ciroflex, 48 mm F 3.5 Walensak lens, walensak rapax shutter, 1 sec.-1/500 sec., $20. 472-0823.

HOUSE: Stewart Manor, 2½ bath, 2 car gar, split level, walk to r/r & stores, many xtras, $54,000. GE 7-8881.

TRANSCEIVER: Mobile multichannel fm, 35 w, 156 megahertz, G.E. mod. MAE 33 progress-line, tube type, 12 vdc pwr. supply, cables, ask. $65. After 6 p.m. FL 2-9860.

GOWN: Bridal, size 12, $125. 585-1234.

CLARINET: Wood Leblanc, $90. TU 8-1332.

MOTORCYCLE: '68 Kawaski 120, 4100 mi., $200. 588-8058.

BOAT: 14 ft. Boston whaler, 40 hp Johnson motor w/gas and hose, $800. After 6 p.m. 757-1634.

OVEN & STOVE: Wall, table top stove, stainless, gas, best offer. Evgs. 543-9281.

VALIANT: '64, 2 door, 2 new tires, orig. owner, needs clutch, best offer. Evgs. 791-3843.

BABY FURN.: Crib, Edison, fruitwood, wood canopy, $30; carriage, bilt-rite coach, full size, $30. (212) 835-5947.

BOAT: 18 ft. fbgls. Turbocraft, 185 hp, water jet drive, 4 wheel Holsclaw trailer, $1,450. After 6 p.m. 681-1474.

MISC. EQUIP.: Hewlett-Packard mod. 400 D ac, vtcm, $30; varian mod. G-10 strip chart recorder, $30; paco mod. M-40 VOM, $10; heath mod. IG-17 sine/square audio generator, $60. 825-6436.

BOAT: '59 Chris Craft, 25 ft., sleeps 4, galley head, 185 hp inbd., depth finder, ready for water, $1500. HA 7-3649.

BOAT: '69 fbgls. Pacemaker, 25 ft., flybridge, sportsfisherman, twin Chrysler inbds., electronics, sleeps 4, galley, dinette, make offer. AN 6-2997.

TIRES: Two delux A78 x 13, Vega wheels balanced, $40. After 6 p.m. WE 5-3617.

CANOE: 13 ft. Grumman, lightweight, paddles, $150. 472-1561.

HONDA: '70, 350, low mileage, 2 helmets, $525. PY 8-7305.

GTO: '68, 389 eng., 4 spd., new brakes, clutch. 475-3448.

WASH/DRYER: G.E., gas, 4 yrs. old, $200. 281-0460.

BOAT: 26 ft. Chris Craft sea skiff-cabin cruise, sleeps 4, twin Chrysler crown engines, 125 hp, rebuilt late '72, s/s radio, port. depth finder, new canvas top, $3000. PY 9-4585, after 6 p.m.

FURN.: Twin-size bed, king-size, hi-riser, bureau, charis, bolster couch. 567-9417.

TENT TRAILER: '68 Apache, gas heater, xtras, $600. 567-0596.

MISC.: Enlarger, nod. 279 w/ stand, $20; tape recorder, stereo, Wollensak, mod. 1280, 7 in. reel to reel, 12 pre-recorded tapes, $100. 731-1325.

HONDA: '70, 175 cc, Scrambler, road, needs very little work, $350. 277-4563.

TIRES: Snows (2), w/w, studded, uniroyal, L78 x 15, $50. 938-6140.

PUPPIES: Irish Setter, champion sire and dame, male & females, WE 8-9853/WE 1-0439.

SAAB: '65, good. tran., needs engine work, $50. WE 8-1930.

HOUSE: Huntington/E. Northport, ¼ acre Cape Cod, alum & brick, 4 bdrm, full bsmt/1 car gar, a/c, w/w, all appl., AG pool-patio, Sch. dist. #4, ask. $46,500. FO 8-8249.

PLYMOUTH: '71 Satellite, custom V-8, 4 dr. sed., a/c, all pwer, disc, radio, rear defrost, vinyl int., low mileage. (212) 445-6668.

For Sale

BOAT: 18 ft. Pennyan, full canvas, 180 hp, Eaton interceptor, trailer, $950. 587-2198.

HOUSE: Smithtown, 3 bdrm., col, 3 bath, slate foyer, dng. rm., wood pan., fam. rm. w/thermopane doors, eat-in-kit, w/w, patio, 2 car gar, xtra stor., $43,990. AN 5-3789.

BUICK: '64 Electra, convertible, all pwer, leather inter, $400. E. Baird, ext. 3997.

HOUSE: Bethpage, 2 yr. old col., 8 lrg. rm., xtras, $44,000. 938-2036.

PUPPIES: Lhasa Apso, 8 wks., AKC, champ bloodlines, $175-200. 589-1323.

HOUSE: Wheatley Heights, 7 ½ rooms, 3 bdrm, 16 ft. x 22 ft. fam. rm., 176 ft. x 250 ft. complete fenced, gar., patio, 16 ft. x 16 ft. sep. summer house, alum. work shop, 11 mi. to Bethpage. 643-7213.

BOAT: Garvey 16 ft. house, controls, ready for water, $350. LT 9-2292.

ROW BOATS: Grumman 13 ft. For details call Employee Service Office, Plt. 2, Ext. 3391.

BOAT: '59 Chris Craft, 25 ft, sleeps 4, galley head, 185 hp, depth finder, ready, $1500. HA 7-3649.

MOTORCYCLE: '65 Hodaka, chamber, custom tires wheels & new tires, expan., $175; bike, 10 spd., Astra light weight, $70; Sprite/MG Midget parts, Volvo, P544 rear seats. PY 8-4258.

OUTBD. MOTOR: 40 hp Johnson, 25 hours, $625. LT 9-2292.

FARMHOUSE: Adirondack Park, 65A views, 9 rms, bath, hot/air central, carpet, appli., some furnishings, enclosed porch,(10 mi. town, hunt-fish, $35,000. Evgs. 671-7012.

CHALET: Schroon Lake, yr. old 2 story, ½ acre, furn, $32,500. 798-0464.

MOTORCYCLE: '72 Suzuki 125 cc, TS125 Duster, 5 spd. trans., 700 mi, road or trail. 661-5711.

BED: Trundel set, maple. 581-8831.

HOUSE: Rocky Point Tides Beach comm., 3 bdrm ranch, den, full wall fireplace/wood catch & planter, copper-gold wall/ shag carpet, eat-in-kit., appl., 20 ft. x 30 ft. deck, beach right, lndscpd., 1/3 acre plus, s/s, bsmt, 6% mortgage avail., hi-30's. 744-1947.

HOUSE: Blue Point, custom, 3 bdrm, ranch, 1½ bath, full bsmt, gar, fenced, s/s, appli., $31,500. 363-6574.

MOTOR HOME: 18 ft. Form williams craft, fully self-cont., gas range, hot water, a/c, sleeps 6, 13,000 mi., $5,500. Gary, Ext. 87196.

VW: '63, 90,000 miles, $50. HA 7-5271.

PLYMOUTH: '63 Valiant, p/s, r/h, new brakes. After 7 p.m. 368-3634.

FORD: '66 Country Squire, station wagon, V-8, auto trans, radio, snows, 55,000 mi., ask. $675. 281 5496.

BOAT: 12 ft. alum., 7½ hp Evinrude outbd., trailer oars & locks, $275. 922-4561.

FURN.: Breakfast set, uphol. corner seats bench, red formica table, $25; 36 in. maple table iron base, $15. 421-5821.

CHEVY: '52, 50,000 miles, r/h, $200 or best offer, will sell parts. After 6 p.m. 249-3194.

MOTORCYCLE: '68 Kawasaki 120, 4100 miles, $275. 588-8058.

PUMP: ¾ hp Century deep well, jet, regulator, 35 gal. storage tank, $85. After 6 p.m. JU 5-8641.

PROPERTY: Shirley, 50 ft. x 200 ft., map 600, block 44, lots S ½ of 18, $3,900. 938-6140.

VAN CAMPER: '65 Dodge, V-8 rebuilt, 17,000 miles, 3 spd. std. trans., r/h, $800. 585-1396.

OPEL: '66 Kadet, buckets, 4 spd., $300. Evgs. 333-2363.

MISC. FURN: Stereo am/fm in cabinet, $20; baby chest, $10; mahogany small dresser, glass top, $10; mahogany nite table, $10. 541-1137.

HOUSE: Roslyn, 3 bdrm, bath upstairs, eat-in-kit, full dng. rm, center-hall, full bsmt, $27,000. Evgs., weekends. 669-6025.

BOAT: '59 Bluefin, lapstrake, 18 ft. make offer. After 5:30 p.m. or weekends, 588-2672.

CRIB: Mattress, bumper pads, sheets, small, $15. 888-2076.

HOUSE: Selden, 3 bdrm, 1½ bath, pan. den, w/w, fenced, maintenance free ext., ½ bsmt., appl., $28,500 firm. 732-5954.

MISC.: Garrard 40 B, auto. turntable, base, cover, pickering elliptical carttridge, $35; Eico hi-fi, am tuner, $15; Selmer Bundy clarinet, $50. 421-2531.

HOUSE: Babylon Village, 3 bdrm, custom split, 1½ bath, dng. rm. gar, fenced, all appl., $32,500. 661-0448.

VW: '63, 90,000 mi., $50. HA 7-5271.

For Sale

MISC.: Flr. waxing mach., commer., ponsell, 15 in., compl. set, $100. 724-2057.

TV CONSOLE: 25 in. color TV Motorola, nds. pictuure tube, $50. 588-6364.

ORGAN: For rock, acetone, 4 octaves, 5 stops, vibrato, $75. W. Leonard, Ext. 86596.

KITCH. SET: Tbl., Chrs., 42 in. octagon tbl., formica tp., centr. ped., 4 chrs., $35. 864-1921.

CALCULATOR: Marchandt, 16 digit, elec. four func., mech., $30. 921-1549.

TRAILER HITCH: Heavy duty, fits, 1 '69-'72 Ford or Mercury sta. wagons, $20. LT 9-1323.

PUPPIES: West Highland, wht. terr. akc. ch. sire, shots, guar., $175. OV 1-7417.

DIN. RM. SET: Junior set, 52 in oval tbl., 12 in. bd., 4 side chrs., one armchr., china closet, tbl. pads, $170. 212-352-4097.

CEMETERY PLOTS: No Fountain gardens, Pinelawn, $800 firm. 587-9740.

MERCURY SEDAN: '50, orig. owner, good running, no rust spots, overdrive, MY 4-1282.

BOAT: 8 ft. fbl. pram, $40; 13 ft. plywd. ski boat, nds. new deck/windshield, $50. HA 3-4011.

HOUSE: Setauket so., 3 bedrms., colonial, 2½ baths, din. rm., den/firepl., 5 appl., dbl. gar., lndscpd., 1/3 acre, fenced, patio, s/s, upper $30s. 698-1169.

BOAT: 26 ft. Marblehead sportfisherman, hull '60 white cedar Caravelle planking, glass decks, Eng.; '70 Chrysler 210 hp., low hrs., s-s radio, depth record., many extras, new paint, in water ready to go. $3,000. PY 6-2526.

HOUSE: W. Farmingdale, ¼ acre, 24 ft. liv. rm., din. rm., panel., firepl., 3 bedrsm., 2 baths, built-ins w/w, patio, fenced, o/h, immedia. occup., low $40s. CH 9-2873.

HOUSE: Lake Ronkonkoma, 3 bedrm. ranch, eat-in kitch., din. rm., firepl., 2 car gar., fenced yd., 12x12 sundeck, 100x100, $35,000. 585-7581.

LAWNMOWER: Reel, 16 in., grass catch., $10. SU 1-4230.

POOL: 20 ft., compl. w/frame, wall, liner, ladder, 1 smart filter, $70. IV 1-0825.

VOLVO: '72 stick, 10,000 mi., $2,650. 724-5738.

FALCON WAGON: '65 squire sta. wag., auto/trans., p/s, $350. 979-0460.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

GRACE M. SOUTHWORTH of Elect. Fab, Plt. 5, died June 25 at the age of 53. She had been with Grumman since March of 1973 and lived at 16 Silver Lane, Bethpage.

EDWARD C. WIMMERSTEDT of Controls and Mechanisms, Plant 15, died on June 25 at the age of 59. He lived at 848 E. Bay Drive, West Islip, and had been with the Company since March 1954.

HAROLD W. SPRAGUE of Maint. Indust. Control, Plant 2, died June 29 at the age of 60. He lived at 2371 New York Ave., Huntington Station, and had been with the Company since 1965.

CLAUDIA BOYNTON of Hull Assy., Plant 36, was 52 when she died on June 30. She had been with Grumman since April 1972, and lived at 191-01 109th Ave., Hollis.

WALTER S. ATHEARN of Procurement Management Info. Systems, Plant 30, died July 5 at the age of 56. He had been with the Company since 1964 and lived at 2 Wildwood Gardens, Port Washington.

WALTER J. ZEMBKO of Prototype, Plant 1, died July 7 at the age of 56. He had been with the Company since 1941 and lived at 43 Birch Street, Locust Valley.

EDWARD LOPEZ of 53 Blackbird Lane, Levittown, died July 9 at 60 years of age. He started with Grumman Aerospace in July 1966 and worked in Machine Operations, Plant 3.

For Sale

MINI-BIKE: '72 Yamaha mini endoro, new back tire, 60cc, $225. 799-6467.

MISC.: Magnavox co'or tv., am/fm turntbl. stereo, $200; Pennny's rider mower, 5 hp. B/s eng. $100. 289-5545.

POOL TBL.: S'ate. new fit., Brunswick supreme balls, all access. 751-3762.

LAWNMOWER: 21 in. Craftsman, self-prop., reel, sears, 6 blades, w/2 catch., $30. MY 4-2062.

MISC.: Emerson 19 in. b/w tv, move. stand, $35; fruitwd. liv. rm. tbl. 2 shelves, $10; 20 gal. fish tank. 2 stands, $15.

MOTORCYCLE: '71 Kawasaki Mach III, 500cc, hi-risers, high tension clutch, new generator, 4,000 mi., gar., $850. 265-4983.

BUICK: '72 Skylark, 7,000 mi., 2 dr. hdtp., all pwr., 350 V-8, auto. trans, air horns, gauges, snows, $3,395. 731-2954.

BOAT: Outbd. cruiser, 12, ft. flying Finn/75 hp. Johnson outbd., w/tach, comp., cushions, etc., $1,200. 543-8577.

GUITAR: Hagstrom III, solid body, black, 3 pickups, w/hard case, new strings, $90. 698-4485 after 6 p.m.

AIR COND.: (2) Frigidair, 6,000 btu, 7½ amps, used 1 mo., $125 ea. 981-9314 after 6 p.m.

HOUSE: Smithtown, 3 bedrm. ranch, din. rm., 1½ baths, full fin. basemt., fenced, pool option., appli., Morewd. school dist. 1, $36,900. 725-1831.

CAMERA: Zeiss Ikon Ikoflex 2¼x2¼ twin lens reflex camera w/case, $35; Olympus Pen F single lens reflex 35 mm half-frame, 1.8 w/light meter and Kako elect. flash unit, $60. A. Bonavita, Ext. 57-485.

ENCYCLOPEDIA: World Book, '63, yearbks. '64-'71, $75. 751-5521 after 5:30 p.m.

REFRIG. FREEZER: 19 cu. ft., $100; 12 cu. ft. $50. 581-1258.

CHEVY: '62 Impala conv., r/h, auto., 6 cyl., $150. 433-1305.

HOUSE: Selden, 3 bedrms., U ranch, panel., 25 ft. firepl., fin. basemt., vt. slate floor, appli., a/s, landscpd., patio barbq., fenced. 698-2873.

CHEVY: '69 Chevelle super sport 396, conv., auto., p/s, p/b, new tp., new tires, new brks., 581-9286.

MISC.: Chevy big b'ock tunnel ram., crane roller cam set, valve covers, HA 7-0245.

HOUSE: So. Hauppauge, bi-level, 4 bedrms., 2 baths, liv. rm., din. rm., fam. rm., 2 car gar., 5 appli., ask. $34,000. 234-2061 after 5:30 p.m.

HOUSE: Bay Shore, 4 bedrms., split, 1½ baths, fam. rm. (12x30), cathedral-ceiling, liv. rm., din. rm., eat-in kitch., gar., lndscpd, $33,500. 665-3758 after 4 p.m.

MERCURY: '70 Cyclone GT, 2 dr. hdtp., vinyl roof, p/b, p/s, r/h, 2 mtd. stud. snows, low mi., $1800., 935-2041.

BEAGLE: Male, 1 yr., brn/wht./blk., housebroken, good w/kids, akc. reg., $80. 427-1946.

BICYCLE: Boy's, 20 in. Royal Union, $15. MY 4-7376.

FENCE: (2) 30 ft. sect. of 4 ft. chain link, inc. all parts, exc. posts, inc. 3 ft. wide self latching gate, $50. MO 7-4832 days.

HOUSE: Bethpage, colonial, 4 bedrms, 2 full baths, liv. rm., din. rm., eat-in kitch., den, store rm., ½ bath, full basemt., a/c, lndscpd., fenced, patio/pool, 9 yrs., $52,000. GE 3-8754.

TRAILER: Avalon travel, 14½ ft., sleeps 6, twin gas btls., elect. brks., ice box, toilet, xtras., $1,100. 266-3120 after 6 p.m.

PUPPIES: St. Bernard, akc., champ. lines, 3 males, well-mark., sound, shots, wormed. 928-0183.

CHRYSLER: '66 New Yorker, full pwr., a/c, all new tires, inc snows, ask. $900. 799-8834 after 6 p.m.

FORD: '66 Country Squire, auto., p/s, $525. JU 8-9148.

TOYOTA: '69 Corona, 4 dr. sedan, r/h, std. shft., 22 mpg., 55,000 mi., $750. JU 4-7285.

MISC.: Din. rm., walnut ext. tbl., two leafs, $125; kidney shape vanity tbl., mirr., skirt, $20. 661-4609.

VALIANT: '65 Signet conv., V-8, auto. trans., r/h, pwr. top., orig. owner, $400. 643-5019, after 5 p.m.

MISC.: 18 in. hand mower, $15; formica kitch. tbl. w/4 fold. chrs., $15; solid marble round coffee tbl., $65; Fisher am/fmm tuner, $25; Rek-o-kut 3 spd. turntbl./arm, $15, 543-0538.

TENT: Morsan umbrella, 12x12, 4 yrs., xtras., $100. 751-2283.

MISC.: Baby carr., biltrite coach, $20; dressing vanity, $10; din. rm. lite, 3 globes, w/walnut trim, $25. 669-5609.

For Sale

MOTORCYCLE: '69 Ducati, mk III, 250cc, $375. AN 5-0297.

MUSTANG: '70 Mach I, orange, 428 ram air, stereo radio. a/c, p/b, p/s, 751-3531.

SAAB: '67 96LT, 3 cyl., new rings, oil inject., 39,000 mi., $395. 864-4014.

HOUSE: Hauppauge So., hi-ranch, lg. plot, 4 bedrms., 2 baths, 2 car. gar., 5 appli., plus extras, $34,000. 234-0467.

AIR COND.: Fedders, 14,000 btu, a/c w/wind. sleeve, 115v. 14 amps, ask. $225. 433-7465.

LOTS: Rio Rancho Estats, Albuquergue, New Mexico, all utilities, low taxes, cash or take over low mortgage. 589-4856.

MISC.: Bikes, boy's 20 in., $20; girls 20 in., $15; lawnmower, 1 reel, 1 rotary, $20 ea. WE 5-4148.

MUSTANG: '67, forest green, 3 spd., 289, gar., $900. ED 4-4129.

HOUSE: Huntington, ranch, liv. rm., kitch. w/din. area, 3 bedrms., one bath, full basemt., outside entr., gar., 100x100, lndscpd, $30,000. 421-9032.

CHEVY WAGON: '68 Impala sta. wag., v8, p/s, p/b, a/c, tint. glass, $900. MO 7-1484.

BOAT EQUIPMENT: Port. spotlite, $15; (2) sq. vinyl bumpers, $16; monomatic head pumpout pump, $25. MY 1-7153.

CAMARO: '67, 6 cyl., stick shft., nds. body wk., 212-HY 9-1405, after 7 p.m.

BOAT: '62 Luhrs, 32 ft., in water, all paint., repowr. 215 grey marine, eng., 20 hrs., ask. $6,000. 234-2713.

PIANO: Baby grand, inc. delivery, $375. F. Ames, Ext. 2741.

MISC.: '72 Chevy turbo hydromatic, trans., used 3,000 mi., $125; Student desk, $30. ED 3-1548.

MOTORCYCLE: Yamaha, 125cc, elec. strt., 3,600 mi.. lugg. rack, $200. 931-5771.

FISH: (19) tropical, mostly catfish, $25 289-7463.

CABINS: Mt. Tremper, N.Y., 1 acre on rt. 28, 3 cabins, gar., car port, baths, well water, trout fish., skiing, hunting, 741-3539 after 6 p.m.

COAT: Ladies full length blk. beaver, $150. 333-3820.

TIRE: New H78x15 w/w, $20; (2) GM rims, 14 in. ED 3-1548.

GALAXIE: '66 Ford, auto., v-8/289 eng., p/s, new batt. 473-9265.

SAAB WAGON: '66, trans. nds. work. 661-1730.

MISC.: Section sofa, 2 club chrs., drum tbl., step tbl., drapes, din. rm. set, fruitwd. tbl., 4 chrs., 3 leafs, pads, drop leaf server, bar stools, Webcor tape record., SU 1-0261.

MISC.: 6 pc., Ital. prov., liv. rm., sunbeam elec. mower, RCA b/w TV console, gold lawson sofa/match. chrs., 2 drum tbls., GE-5000 btu a/c. MO 9-7080.

BOAT: Grumman runabout, navy w/s, top/side curtain, Mastercraft tilting trail., 15 h.p. motor, 5 cushions, anchor, paint. for salt water, $400. JU 4-5651.

MISC.: Outside micrometer calipers, Goodel Pratt, 1 in. no racket; Starlet 1 to 2 in with ratchet, $10; central 3 tto 4 in. with rache, $10; Cenral 5 to 6 in w/tatch., $20. 862-8268.

MISC.: Keoki surfbd., 9 ft. 6 in., $30; surfer wet suit, med., $10; Northland glass, fbgl. sul 15-200 cm, $20; J. Mangre, Ext. 2014.

MUSTANG: '66, new tires, 6 cyl, auto. trans., $550 or best offer. Janice, Ext. 3125.

MISC.: Camping tent, continental, 10x16, sleeps 6, sewn flr. liner, w/att. awn., $60; Tape recorder, port., $20; four spd. fan; Ampex, series 1000 tape recorder, $100; VM tape record., $10. PY 6-5160 after 6 p.m.

BOAT: '61 Luhrs, 30 ft., '69 225 hp FWC Palmer, s/s, d/f, head, galley, flybridge, painted ready for water, ask. $3,500. 724-1553 after 6 p.m.

PUPPIES: Lhasa Apso, 6 wks., akc bloodlines, raised with children, $175-$200. 589-1323.

HOUSE: So. Setauket, 3 village schools, 3 bedrm. ranch, 1½ baths, s/s, w/w, appli., fenced, gar., landscpd., ask. $32,990. 928-2357.

GOLF CLUBS: One set of irons 2 to 9, wedge, putter, bag, $55. 676-6203.

TRAINS: Lionel, .027 gauge, 2½ sets of trains, 2 transformers, 4 switches, 1 cross track, straight tracks, $75. 475-0814.

MISC.: Outbd motor, 18 hp Johnson, $150; sink and cabinet, $35. 744-2056.

MOTORCYCLE: '66 Suzuki, 150 cc elec. start, lugg. rack, saddle bags, $195. 472-2326.

CHRYSLER: '64 Newport, wht., four new tires, new brks., $125. 935-4467 after 5:30 p.m.

For Sale

ORGAN: Viscount-Spinet, dbl. keybd., 13 base pedals, 16 voices, built-in Leslie, w/bench, $600. 785-6256 evgs.

JUNGLE GYM: Child's, 6 ft. high, used one summer, $10. 623-4046.

HOUSE: Smithtown, colonial, 6½ yrs., 3 bedrms., 1½ baths, eat-in kitch., elec. appli., den, form. din. rm., basemt., ¼ acre, lndscpd., $40,000. 724-2756.

CHEVY BLAZER: '72, blue/wht. GE 7-6953.

POOL: 4x18 ft., stteel, liner, ladder, filter, chemicals, $50. AN 5-7316.

BUOY: Tie-up float, 12 in. dia., new, $15. OV 1-3641.

HOUSE: Selden, 4 bedrms., eat-in kitch., form. din. rm., 1½ baths, panel. den, carpeting, s/s, anchor fencing, redwd. deck, major appli., many extras. $35,000. 732-2970.

RAMBLER: '65 Ambassador 990, 2 dr., hdtp., auto., v8, p/s, p/h, r/h, ask. $600. S. Mias, Ext. 84007.

IMPALA: '67 super sport, vinyl rf., blk. int., cntr. console, auto. trans., p/s, p/b, $1,100. HA 1-3248.

HOUSE: Bethpage, alum. cape, 4 bedrms., liv. rm./dining area, new roof, new burner, principals only, $34,990. 731-5258.

MUSTANG: '67 '289' 3 spd., eng. running, nds. some body wk., ask. $150. 543-2259.

HOUSE: Farmingda'e village, 3 bedrm. colonial, eat-in kitch., ohw basebd heat, form. din. rm., liv. rm., sun roof, screen. patio, fin. basemt., new bath, walk-up attic, det. gar., $34,500. CH 9-9313.

HOUSE: East Setauket, 4 bedrms., din. rm., basemt., 26x16 sun deck, 24 ft. above-grnd. pool, wash./dryer/dishwash., fenced, three village schools, $32,000. 928-0168.

BOAT: '67 fbgl. 18 ft., 75 hp Johnson, nds. water pump (have pump), $550. 822-4697.

FURNITURE: Contemp. chest of drawers, $40; colon. maple tbl., $10; claw/ball ft. cocktail tbl., $20; Victorian hnadcarved side cahr. $10; contemp. desk chr., $10. 921-3192 evgs.

BOAT: Sailing sloop, international Lightning, 19 ft., compl. w/sails, anchor, $545. HA 7-2316.

LAWNMOWER: Elec., dual blade, 18 in., inc. grass catch., $40. 623-4046.

MISC.: Hip boots, never used, $15; bassinette, $10; 23 in. RCA tv console, $120. 587-0330.

VW: '68 36,000 mi., custom paint, air scoop, fibgl. fenders, custom int., cust. eng., xtras. $1,250. 433-3407.

REFRIGERATOR: G.E. single dr., 12 cu. ft., $50. R. Aponte, x 2479.

DISHWASHER: Hot Point, 4 yr., coppertone, undercounter, 2 cycle, can be port., $75. 665-6639.

LE MANS: '65. 588-3824.

We're trying . . .

NO, your ads didn't get lost in the mail . . . and YES, we still have them . . . but we're playing "catch-up." We need your help. Please, send in ads *only* for yourself and keep that ad word-count down.

plane GRUMMAN news

Published twice a month for the employees of Grumman Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

Manager, Internal Communications
Brian Masterson

Managing Editor
Charles Petty

Editorial Assistants
Kathy Housley
Cynthia McCaskiel

Telephone
Plane News: 3293
Plane News from outside line: LR 5-3293

Big day shaping up for Grumman family picnic

July 21 is just around the corner . . . one week to go . . . and the annual Grumman family picnic looks like a blockbuster. Why not round up the family for a day of fun and relaxation on the spacious picnic grounds at Calverton.

If you haven't bought your tickets, trot on down to the nearest friendly Employee Services Office where you can buy your way into the Calverton picnic grounds. Tickets are $2.50, and there is no charge for family members under the age of 12. You'd better do it soon because *no tickets will be sold at the gate.* All Grumman employees and family members who live under the same roof are eligible, including single employees and their dates, says Gus D'Errico who heads ESO.

There are plenty of activities planned, but the day is yours. Spend it as you wish, perhaps a little snooze in the shade, a few foxtrots, or a game of volleyball. It's your day to make the most of.

There are plenty of freebies supplied by the Company — soda, ice cream, hot dogs, and beer (for those who indulge), but you may want to bring along extra supplies. Perhaps lounge chairs, or your favorite blanket to stretch out in the sun on. There are picnic tables available on the site, but you may want to bring along a barbeque to cook a juicy steak on, or to toast a few marshmellows for the kids.

Program

8 a.m. ..... Gates open
10 a.m ..... Flag raising ceremony
10:30 a.m. - 2 p.m. ..... Sporting events
10:30 a.m. - 12:45 p.m. ..... Dance music
1 p.m. ..... Entertainment for children
2 p.m. ..... Boxing bouts
2:15 - 4:45 p.m. ..... Dance music
2:30 - 4 p.m. ..... Awarding of door prizes
4:45 p.m. ..... Closing flag ceremony

Don't forget the cooking utensils, paper plates, and other conveniences. And if you are a sports enthusiast, bring along a volleyball net, and bat and balls. But most important, tote along a few pitchers so you can carry beer and soda . . . although cups are available for those who like going on trips.

What's happenin . . .

There are a lot more things to do than gobbling down the free hot dogs and beer. For instance, there is Totsville for kids up to seven years of age. They can romp all day on a miniature Ferris wheel, a mini-carousel, swings, two boat rides, a fire engine, and two mini-trains—the L.I.R.R. and the Calverton Express. And there is certain to be plenty of shrieks and laughter coming from the "bigger" kids as they ride the caterpillar and octypus.

Then, too, there will be the traditional hour-long stage show beginning at 1 p.m. for kids of all ages. The action-packed boxing bouts for the small fry—where "everybody wins"—go on about 2 p.m. immediately following the show. John Koloski and his group will manage the gloves event in which each contestant will win a prize. If you haven't signed up your boy yet, contact John Koloski in the Plant 1 ESO office, there may be a few openings left on the boxing card.

Or how about a little daytime music? You can grab your partner and dance to the music of Matty Daniels and his Grumman band throughout most of the day. And if you don't have the energy for all-time favorites, polkas, and rock-n-roll, you can just sit back and listen.

In the open fields there will be many just doing what they want . . . a few softball games . . . a little football . . . some kite flying . . . some running around . . . or even catching a few sunrays.

What would a picnic be without handicap races . . . such as a potato-sack race, a three-legged race, a wheel barrow race, a 50-yard dash for girls and one for the boys, and a softball throwing contest for gals only. And the egg-throwing contest between husbands and wives is always good for a few laughs. They start right after the official picnic opening at the 10 o'clock flag-raising.

And let's not forget those prizes. Between 2:30 and 4 p.m., ESO reps will stage a giant prize drawing — there are about 100 awards in all — in which every ticket holder is eligible to win a prize. In past years, some of the lucky winners have walked away with TV sets, air conditioners, and freezers, so hold onto your ticket stubs.

Here's how to get there: Take the L.I. Expressway to Exit 69 (Wading River Rd.), go north to Route 25 make a right turn and drive a few hundred yards and you are at the picnic entrance. Or you can take the L.I. Expressway to Exit 68 (William Floyd Parkway) head north until you reach Route 25, go east and you are there. Or you can journey along Sunrise Highway to William Floyd Parkway North to Route 25

Remember, Saturday, July 21. See you at Calverton!

Just in case . . .

If it rains on picnic day, the outing will be held on Sunday, July 22.

Any postponement will be announced early on Saturday over the following Long Island radio stations:

WLIR, Garden City (FM 92.7); WGBB, Freeport (AM 1240); WHLI, Hempstead (AM 1100); WBAB, Babylon (AM 1440, FM 102.3); WALK, Patchogue (AM 1370, FM 97.5); WGSM, Huntington (AM 740); WLNG, Sag Harbor (AM 1600).

A quick check may also be made by telephone. Information will be available by calling PA 7-1500 for the Calverton area or LR 5-5111 for Bethpage.

Grumman reaffirms its support

Did you know that Grumman is one of many corporations in America that recognize the National Guard and Reserve as essential to the strength of the nation and maintenance of world peace. According to Dan Knowles, Personnel director of Grumman Aerospace, "The National Guard and Reserve deserves the interest and support of the American business community, and at Grumman we have supported for many years the aims and goals of that service."

As part of that support, Knowles said:

- Job and career opportunities will not be limited or reduced because of service in the Guard or Reserve;
- Employees will be granted leaves of absence for military training in the Guard or Reserve without sacrifice of vacation time; and,
- Grumman will pay the wage differential (if any) between an employee's base pay and his Guard or Reserve pay while on military training.

Grumman Health Systems operating room console, which will be used by the open-heart surgery team in the new $10-million St. Francis Hospital, is explained by GHS representative Matt Mankiewicz to Sid Gorenberg and Phyllis Zanata of Mended Hearts Inc., an organization for people who have undergone open-heart surgery. The console centralizes the operating room's life-support and monitoring equipment into a single, compact unit. The new Heart Center is the first to specially adapt this equipment for pediatric, as well as adult, open heart surgery. (Photo by Marie Trimborn)

GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK 11714

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